# Advanced Structural Materials

BRIGHAM YOUNG UNIVERSITY

IsoTruss STRUCTURES, INC.

## CENTER

The objective of the Center for Advanced Structural Composites is to commercialize the IsoTruss technology. The IsoTruss enables the creation of super lightweight grid structures with the potential for revolutionizing industries as diverse as civil infrastructure (e.g., communication and construction), aerospace, automotive, marine and sporting structures and virtually any application area requiring high strength, high stiffness, light weight and superb corrosion resistance.

## TECHNOLOGY

The core technology consists of an ultra-lightweight composite structural shape known as the IsoTruss. The IsoTruss is a novel, patented, three-dimensional structural form that takes advantage of the highly directional properties of high strength composites to produce an extremely efficient and lightweight structure. The IsoTruss incorporates stable geometric configurations with helical members that spiral in opposing directions around a central cavity, coupled with longitudinal members that pass through the intersections.

## ACCOMPLISHMENTS

In 2003, this Center was the recipient of the Stoel Rives Utah Innovation Award in the Mechanical Devices and Advance Materials Category. Several license agreements were negotiated with BYU for the IsoTruss technology, and a new Utah firm, known as IsoTruss Structures Inc. has licensed the rights for domestic commercial applications.

## THINK TANK

**What if there was...**

**A power line transmission tower that can withstand extreme wind conditions, support tremendously heavy loads, remain corrosion free, be unaffected by temperature extremes, and weighs significantly less than conventional steel towers?**

Center for Advanced CASC Structural Composites

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